TECHNICAL

ATX is a switch-and facilities-based provider. ATX delivers its voice and data services over its state of the art fiber optic Asynchronous Transfer Node (ATM) network covering more than 90 major points of presence nationwide. Connectivity for the ATX-owned and operated network and multiple technical operations centers is provided via DS3, OC-3, OC-12, and OC-48 facilities with a self-healing, diverse, and redundant topology ensuring low latency while delivering maximum availability and throughput. The network is connected via Lucent CBX500 ATM switches and Lucent B-STDX 9000 Frame Relay Switches.

Integrated Access (the delivery of voice, data and Internet over a single facility for maximum utilization of bandwidth and efficiency) is delivered via Tellabs Digital Access Cross Connect Systems located throughout the network. There are currently Technology Centers (TCs) located in Philadelphia, Cleveland, Columbus, Chicago, Milwaukee, and East Lansing, Michigan, with each TC serving as the primary

Technology Centers (TCs) located in Philadelphia, Cleveland, Columbus, Chicago, Milwaukee, and East Lansing, Michigan, with each TC serving as the primary regional, customer-centric Network Operations Center (NOC) and King of Prussia, PA serving as the master Technology Management Center (TMC). All Centers are manned with skilled, highly trained technical personnel and protected around-theclock, 365 days-a-year with state-of-the-art surveillance and monitoring systems, redundant and diverse back-up, power distribution, and facilities. Further, all Centers are backed up via the TMC for uninterrupted networking monitoring and management.

ATX utilizes Alcatel 600e non-blocking and redundant architecture switches to process long distance traffic and Lucent 5ESS and Nortel DMS 500 switches to process local traffic. Local voice and data services are provided via a regional unbundled network as well as traditional access tandems and direct end office facilities.

ATX brings multiple National Tier 1 Internet Service Providers into each Technology Center for maximum uptime, availability, and network optimization ensuring next to zero downtime. Each Internet-ready center has a minimum of three high-speed (DS3 or greater) facilities with major providers such as UUNet, Sprint, and Level 3. Each center is also connected to the nationwide ATX backbone as an additional upstream. By combining the strength of each Tier 1 provider through disparate NAPs (Network Access Points) and MAEs (Metropolitan Area Ethernets) and using BGP4 to load balance and direct traffic across each backbone, customer uptime is maximized by reducing the reliance on a single provider, access point, or peering point. Any two connections can go down in any center and a high level of service is still maintained. Bandwidth utilization never exceeds an excess capacity of 30 percent before additional bandwidth and/or facilities are added.

At the heart of each Technology Center, Cisco 7513 routers are deployed at the core with Cisco 7200 series routers deployed at the edge for customer grooming. Backbone Layer 2 and 3 switching resides on Cisco Catalyst switches. DNS and Mail servers reside on Sun Microsystems platforms.

For hosting and co-location services, ATX currently has E-business Data Centers deployed in Philadelphia, Virginia, Cleveland, Columbus, Chicago, and East Lansing.

Each Data Center has the following:

- 24x7x365 manned operations and customer service
- OC-3/12/48 SONET backbone infrastructure
- Complete network monitoring and management
- Web site statistics and reporting
- ID key cards
- · Steel, secure cabinets and cages
- Closed circuit video cameras
- Database and application support
- FM200 Fire Suppression Systems
- Onsite UPS and generators
- Fully redundant Liebert climate control systems
- Optional IP load balancing, managed firewalls, and content caching
- Onsite content developers, Network Administrators, and System Engineers
- Access to ATX's worldwide, fully redundant voice and data network
- Manned by savvy technical specialists with extensive telecommunications and data center experience
- Senior Management with 150 years of combined telecom tenure